



DIVISION OF MINES  
BOARD OF COAL MINING EXAMINERS  
CERTIFICATION REQUIREMENTS

**UNDERGROUND ELECTRICAL REPAIRMAN**

Article 3 of the Coal Mine Safety Laws of Virginia establishes requirements for certification of coal mine workers. The certification requirements are included in §45.1-161.24 through §45.1-161.41 in which the Board of Coal Mining Examiners is established for the purpose of administering the certification program. The Board has promulgated certification regulations 4 VAC 25-20 (VR 480-04-2), which set the minimum standards and procedures required for Virginia coal miner examinations and certifications.

**CERTIFICATION CLASSIFICATION: \*Underground Electrical Repairman**

This certification authorizes the holder to:

- Perform electrical work and inspections at all underground and surface areas of underground coal mines
- Make examinations on electrical equipment
- Conduct and record results of electrical examinations

**NOTE:** This certification shall be used at surface and underground mines.

**APPLICATION/EXPERIENCE REQUIREMENTS:**

- Application (BCME-1) and \$10.00 fee 5 working days prior to examination
- One year of electrical experience in underground coal mining under the direction of a certified underground electrical repairman or appropriately related work experience approved by the Chief of the Division of Mines
- Current first aid training (MSHA first aid 5000-23 acceptable)
- Six months credit will be granted for electrical educational training from a college, technical school, or vocational school
- Hold a General Miner Certification, if required by law. Miners who have Virginia coal mining experience prior to January 1, 1996, and wish to obtain general miner certification must meet BCME requirement 4 VAC 25-20-255 A.1.2.3. or attend required general miner training.

**EXAMINATION REQUIREMENTS:** A score of 80% on each element of the examination.

<b>ELEMENTS OF EXAM</b>	<b>NUMBER OF QUESTIONS</b>
▪ Alternating Current (AC)	20
▪ First Aid (MM)	20
▪ Direct Current (DC)	20
▪ Circuits & Equipment/drawings (CE)	20
▪ Cable Splicing (CS)	20
▪ High Voltage (HV)	20
▪ Legal Requirements (LR)	20
▪ Permissibility (PR)	20
▪ Gas Detection - practical demonstration	

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- Records - Practical Stations (7)
  1. Control Circuit Troubleshooting - Electrical Schematic Reading (ER)
  2. Electrical Examinations - Record Keeping Underground (RU)
  3. Electrical Examinations – Record Keeping Surface (RS)
  4. Cable Troubleshooting (CT)
  5. Circuit Breaker Troubleshooting (CB)
  6. Permissibility (PD)
  7. High Voltage Power Move (VP)

**RECOMMENDED REFERENCE/STUDY MATERIALS:**

- Electrical Study Guide
- Coal Mine Safety Laws of Virginia
- BCME Requirements
- Title 30 CFR Parts 18, 75, 77
- MSHA (Basic First Aid) Manual 3
- Mine Gases Packet

**The above mentioned study materials are available at the Department of Mines, Minerals and Energy's Big Stone Gap Office, Customer Assistance Center (276) 523-8233 and Keen Mountain Field Office (276) 498-4533.**

**\*8 hours Electrical Repairman continuing education will update this certification.**

**Revised 10/20/03**